(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 12 May 2005 (12.05.2005)

PCT

(10) International Publication Number WO 2005/043882 A3

(51) International Patent Classification7:

H04N 7/12

(21) International Application Number:

PCT/US2004/034856

(22) International Filing Date: 21 October 2004 (21.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/512,902

21 October 2003 (21.10.2003)

(71) Applicant (for all designated States except US): PRIS-MVIDEO, INC [US/US]; 2555 Tamalpais Avenue, El Cerrito, CA 94530 (US).

(71) Applicants and

- (72) Inventors: RAMCHANDRAN, Kannan [US/US]; 2555 Tamalpais Avenue, El Cerrito, CA 94530 (US). ORTEGA, Antonio [ES/US]; 806 S. Stanley Avenue, Los Angeles, CA 90036 (US).
- (74) Agent: BUSINGER, Peter, A.; 344 Valleyscent Avenue, Scotch Plains, NJ 07076 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

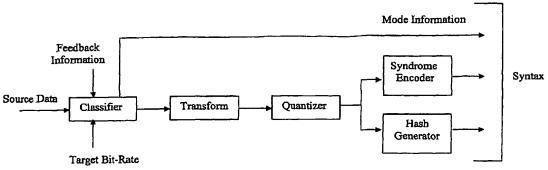
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 11 August 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VIDEO SOURCE CODING WITH SIDE INFORMATION



(57) Abstract: For video coding based on source coding (fig. 1) with side information (mode information), features pertain to modules in the encoder and the decoder, to the codec, and to systems utilizing an encoder, a decoder and/or a codec. An encoding (fig. 1) can provide an estimate of the degree of correlation between blocks, can identify a target codeword, can represent the target codeword by a set comprising a plurality of codewords with the set including the target codeword, and can determine a hash value (fig. 1) from the target codeword, for decoding to take advantage of such information. Advantageously also, the information can be used in transmission rate control (fig: 1). An encoding to be transmitted can be selected from several different encodings. Encoding of a block can benefit from information on previous blocks fed back from a decoder. In generating an encoding, different camera sources can be used, as well as sensors arrayed on a grid. An encoding can be multi-cast.

